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Phyllachora hainanensis sp. nov. from China

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ABSTRACT — A new species, *Phyllachora hainanensis* on *Phyllanthus emblica* (*Phyllanthaceae*), causing tar spots is reported from Hainan Province, China. *Phyllachora hainanensis* differs from other similar species in the size and shape of ascospores.

KEY WORDS — *Sordariomycetes*, taxonomy

A new species of *Phyllachora* (*Sordariomycetes*) on leaves of *Phyllanthus emblica* was collected from Hainan Province, China, in November 2007. Worldwide, only *P. phyllanthophila* and *P. phyllanthophila* var. *egregia* have previously been reported from the host genus *Phyllanthus* (Saccardo & Saccardo 1905: 834, Saccardo & Trotter 1913: 419).

Phyllachora hainanensis Na Liu & G. Huang, **sp. nov.** PLATE 1

FUNGAL NAME FN570110

Differs from *Phyllachora phyllanthophila* by its larger ascospores.

TYPE: China, Hainan Province, Xiawangling, alt. 800 m, on leaves of *Phyllanthus emblica* L. (*Phyllanthaceae*), 13 XI 2007, Shuanghui He, L. Guo & Z.Y. Li 2013 (HMAS 245338, **holotype**).

ETYMOLOGY: From Hainan Province, where the new species was collected.

ASCOMATA epigenous, raised, shiny, black, sparse, subglobose, ellipsoidal or irregular, approx. 370 × 150–260 μm diam., immersed in the mesophyll, usually with a single locule, ostiole conspicuous with a conical neck extending through the host epidermis and cuticle, without periphyses. ASCI arise from the basal and lateral walls of the ascoma, upper wall to 50 μm thick, composed of epidermal cells occluded by melanised material. Asci 60–100 × 30–70 μm,

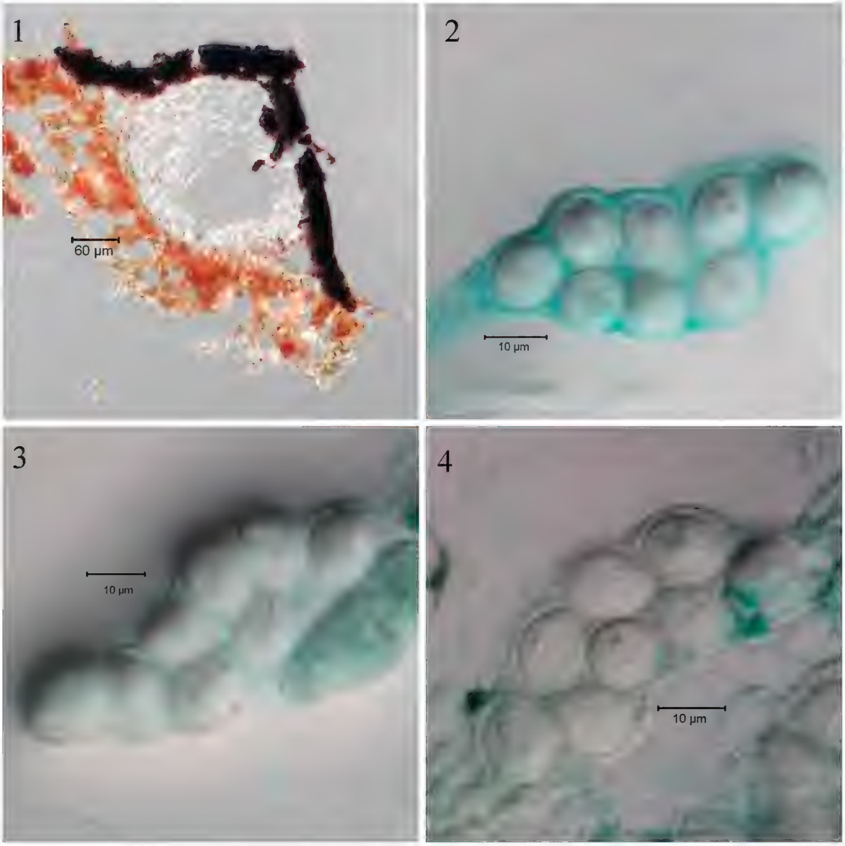

Plate 1. *Phyllachora hainanensis* (HMAS 245338, holotype).
1. Ascomata; 2–4. Asci and ascospores.

8-spored, clavate, obtuse at apex, long pedunculate, thin-walled at maturity, unitunicate. Ascospores biseriate or irregularly biseriate, 11–18 × 9–13 µm, ellipsoidal or subglobose, one-celled, hyaline, thin-walled, smooth, without a gelatinous sheath. Anamorph not seen.

Comments—Subglobose ascospores are rare in *Phyllachora*. Only one other species, *P. yunnanensis* Na Liu & L. Guo, collected on *Lespedeza* (*Fabaceae*) from Yunnan Province of China, has been reported as having subglobose (sometimes ellipsoidal) ascospores. *Phyllachora yunnanensis* differs from *P. hainanensis* in its smaller (7–13.5 × 5–9 µm) ascospores (Liu & Guo 2006).

Phyllachora hainanensis is the first *Phyllachora* species in China discovered on a host species in the *Phyllanthaceae*. Most *Phyllachora* species reported in China occur on hosts in the *Poaceae, Fabaceae,* and *Cyperaceae* (Tai 1979, Teng 1963, Lan et al. 2012, Cui 2009). The only other reports of *Phyllachora* on *Phyllanthus* are *Phyllachora phyllanthophila* Henn. on *Phyllanthus* sp. from Peru (Hennings 1904: 250) and *P. phyllanthophila* var. *egregia* Rehm on *Phyllanthus* sp. from Brazil (Rehm 1907: 530). These taxa were subsequently transferred to *Catacauma* as *C. phyllanthophilum* (Henn.) Theiss. & Syd. and *C. egregium* (Rehm) Theiss. & Syd. (Theissen & Sydow 1915: 390–391), but *Catacauma* is now synonymised with *Phyllachora* (von Arx & Müller 1954: 212) and *P. phyllanthophila* var. *egregia* is synonymised with *P. phyllanthophila* (Index Fungorum 2015). The publications cited above provide different sets of measurements that can be summarised as 35–60 × 12–20 µm for asci, and 10–14 × 5–9 µm for ascospores; thus *P. phyllanthophila* differs from *P. hainanensis* by its smaller asci and its narrower, ellipsoidal to subovoid ascospores.

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